

LISTING OF CLAIMS

Claims 1-24 (Canceled)

Claim 25 (Currently Amended) An articulated yoke of a universal-joint propeller shaft, the propeller shaft having a drive side and a take-off side, the articulated yoke comprising:

at least one leg member configured to couple to a machine element on at least one of the drive side and the take-off side of the universal-joint propeller shaft;

at least one bearing part connected to the leg member, the bearing part including a supporting surface defining a bore therethrough; and

a roller-bearing arrangement to position a journal of a differential-pinion shaft, the roller-bearing arrangement having a plurality of rolling elements configured to enable rotation of the journal about a longitudinal axis of the journal with respect to the supporting surface, the roller-bearing arrangement having at least one region of stress adjacent to the journal at which the journal exerts a radial force capable of elastically or plastically deforming the bearing part or the roller-bearing arrangement, at least one of the rolling elements being stressed at the region of stress, the supporting surface configured to support at least a portion of the roller-bearing arrangement;

wherein the supporting surface of the bearing part is provided with at least one recess only in the region of stress, the recess including a width in a direction around the journal, a depth in a direction radial of the journal, and a direction of extension extending toward a pivot axis of the journal in a direction parallel to the longitudinal axis of the journal, the width and the depth of the recess diminishing along the direction of extension, such that the recess accommodates deformation of the roller-bearing arrangement in the direction of the radial force to maintain a substantially uniform distribution of radial forces transmitted by the journal to the roller-bearing arrangement.

- Claim 26 (Canceled)
- Claim 27 (Canceled)
- Claim 28 (Previously Presented) The articulated yoke according to claim 25, wherein the recesses extends an entire length of the bore.
- Claim 29 (Previously Presented) The articulated yoke according to claim 25, wherein the supporting surface of the bearing part further includes a second recess in a second region of stress, the second recess being arranged symmetrically relative to a plane described by the longitudinal axis of the journal and the pivot axis of the journal.
- Claim 30 (Previously Presented) The articulated yoke according to claim 25, further comprising:
two yoke halves having respective leg members and bearing parts.
- Claim 31 (Previously Presented) The articulated yoke according to claim 25, wherein the bore comprises a blind hole.
- Claim 32 (Currently Amended) A bearing arrangement to position a differential-pinion shaft in an articulated yoke of a universal-joint propeller shaft, comprising:
at least one bearing part including a supporting surface defining a bore therethrough; and
a roller-bearing arrangement to position a journal of a differential-pinion shaft, the roller-bearing arrangement having a plurality of rolling elements configured to enable rotation of the journal about a longitudinal axis of the journal with respect to the supporting surface, the roller-bearing arrangement having at least one region of stress adjacent to the journal, at which the journal exerts an excess radial force capable of elastically or plastically deforming the bearing part or the roller-bearing arrangement, at least one of the rolling elements being highly

~~stressed at the region of high stress~~, the supporting surface configured to support at least a portion of the roller-bearing arrangement;

wherein the supporting surface of the bearing part is provided with at least one recess ~~only~~ in the region of stress, the recess including a width in a direction around the journal, a depth in a direction radial of the journal, and a direction of extension extending toward a pivot axis of the journal in a direction parallel to the longitudinal axis of the journal, the width and the depth of the recess diminishing along the direction of extension, such that the recess accommodates deformation of the roller-bearing arrangement in the direction of the radial force to maintain a substantially uniform distribution of radial forces transmitted by the journal to the roller-bearing arrangement.

Claim 33 (Canceled)

Claim 34 (Canceled)

Claim 35 (Previously Presented) The bearing arrangement according to claim 32, wherein the recess extends an entire length of the bore.

Claim 36 (Previously Presented) The bearing arrangement according to claim 32, wherein the supporting surface of the bearing part further includes a second recess in a second region of stress, the second recess being arranged symmetrically relative to a plane described by the longitudinal axis of the journal and the pivot axis of the journal.

Claim 37 (Currently Amended) An articulated yoke of a universal-joint propeller shaft, the propeller shaft having a drive side and a take-off side, the articulated yoke comprising:

at least one leg member configured to couple to a machine element on at least one of the drive side and the take-off side of the universal-joint propeller shaft;

at least one bearing part connected to the leg member, the bearing part including a supporting surface defining a bore therethrough; and

a roller-bearing arrangement to position a journal of a differential-pinion shaft, the roller-bearing arrangement having a plurality of rolling elements configured to enable rotation of the journal about a longitudinal axis of the journal with respect to the supporting surface, the roller-bearing arrangement having a first region of stress adjacent to the journal, ~~at least one of the rolling elements being stressed at the region of stress, at which the journal exerts a radial force capable of elastically or plastically deforming the bearing part or the roller-bearing arrangement~~ the supporting surface configured to support at least a portion of the roller-bearing arrangement;

wherein the supporting surface of the bearing part is provided with a recess over the entire first region of stress, the recess including a width in a direction around the journal, a depth in a direction radial of the journal, and a direction of extension extending toward a pivot axis of the journal in a direction parallel to the longitudinal axis of the journal, the width and the depth of the recess diminishing along the direction of extension, such that the recess accommodates deformation of the roller-bearing arrangement in the direction of the radial force to maintain a substantially uniform distribution of radial forces transmitted by the journal to the roller-bearing arrangement.

Claim 38 (Canceled)

Claim 39 (Previously Presented) The articulated yoke according to claim 37, wherein the recess extends an entire length of the bore.

- Claim 40 (Previously Presented) The articulated yoke according to claim 37, wherein the supporting surface of the bearing part further includes a second recess in a second region of stress, the second recess being arranged symmetrically relative to a plane described by the longitudinal axis of the journal and the pivot axis of the journal.
- Claim 41 (Previously Presented) The articulated yoke according to claim 37, further comprising:
two yoke halves having respective leg members and bearing parts.
- Claim 42 (Previously Presented) The articulated yoke according to claim 37, wherein the bore comprises a blind hole.